

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS**

ZYRCUITS IP LLC,

Plaintiff,

v.

**SAMSUNG ELECTRONICS AMERICA,
INC.,**

Defendant.

Civil Action No.:

TRIAL BY JURY DEMANDED

COMPLAINT FOR INFRINGEMENT OF PATENT

Now comes, Plaintiff, Zyrcuits IP LLC (“Plaintiff” or “Zyrcuits”), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) to prevent and enjoin Defendant Samsung Electronics America, Inc. (hereinafter “Defendant”), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No. 6,671,307 (“the ‘307 Patent” or the “Patent-in-Suit”), which is attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney’s fees, and costs.

THE PARTIES

2. Plaintiff is a Texas limited liability company with its principal place of business at 6009 W. Parker Rd. Ste. 149-1013, Plano, TX 75093.

3. Upon information and belief, Defendant is a corporation organized under the laws of New York, having a principal place of business at 85 Challenger Rd., Ridgefield Park, NJ

07660. Upon information and belief Defendant maintains a residence in the form of a flagship campus at 6625 Excellence Way, Plano, TX, 75023. Upon information and belief, Defendant may be served with process c/o: C T Corporation System, 1999 Bryan St., Ste. 900, Dallas, TX 75201.

4. Plaintiff is further informed and believes, and on that basis alleges, that Defendant controls and/or operates the website www.smarthings.com, which is in the business of providing spread-spectrum transmitters for sending data over a communications channels, amongst other products. Defendant derives a portion of its revenue from sales and distribution via electronic transactions conducted on and using at least, but not limited to, its Internet website located at www.smarthings.com, and its incorporated and/or related systems (collectively the “Samsung Website”). Plaintiff is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendant has done and continues to do business in this judicial district, including, but not limited to, providing products/services to customers located in this judicial district by way of the Samsung Website.

JURISDICTION AND VENUE

5. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq.*

6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).

7. This Court has personal jurisdiction over Defendant by virtue of its systematic and continuous contacts with this jurisdiction and its residence in this District, as well as because of the injury to Plaintiff, and the cause of action Plaintiff has risen in this District, as alleged herein.

8. Defendant is subject to this Court’s specific and general personal jurisdiction pursuant to its substantial business in this forum, including: (i) at least a portion of the

infringements alleged herein; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in the forum state and in this judicial District; and (iii) being incorporated in this District.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendant resides in this District under the Supreme Court's opinion in *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through its incorporation, and regular and established place of business in this District.

FACTUAL ALLEGATIONS

10. On December 30, 2003, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '307 Patent, entitled "Spread-Spectrum High Data Rate System and Method" after a full and fair examination. The '307 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten.

11. Plaintiff is presently the owner of the '307 Patent, having received all right, title and interest in and to the '307 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '307 Patent, including the exclusive right to recover for past infringement.

12. The invention claimed in the '307 Patent comprises an improvement to a spread-spectrum transmitter for sending data over a communications channel.

13. The '307 Patent contains eight total claims with all eight claims being independent claims.

14. Claim 3 of the '307 Patent states:

"3. An improvement to a spread-spectrum transmitter for sending data over a communications channel, comprising:

a memory for storing N bits of data as stored data, with N a number of bits in a symbol;

a chip-sequence encoder, coupled to said memory, for selecting, responsive to the N bits of stored data, a chip-sequence signal from a plurality of chip-sequence signals stored in said chip-sequence encoder, as an output chip-sequence signal; and

a transmitter section, coupled to said chip-sequence encoder, for transmitting the output chip-sequence signal as a radio wave, at a carrier frequency, over said communications channel, as a spread-spectrum signal.” *See* Exhibit A.

15. Defendant commercializes, inter alia, a device having all the elements and components recited in at least one claim of the ‘307 Patent. More particularly, Defendant commercializes, inter alia, a device as recited in Claim 3 of the ‘307 Patent. Specifically, Defendant makes, uses, sells, offers for sale, or imports a device that encompasses that which is covered by Claim 3 of the ‘307 Patent.

DEFENDANT’S PRODUCTS

16. During the enforceability period of the ‘307 patent, Defendant offered solutions, such as the “SmartThings Hub” (the “Accused Product”), that enables a spread-spectrum transmitter for sending data over a communications channel. For example, the Accused Product is or includes a spread-spectrum transmitter for sending data over a communications channel. A non-limiting and exemplary claim chart comparing the Accused Product to Claim 3 of the ‘307 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten.

17. As recited in Claim 3, the Accused Product comprises a spread-spectrum transmitter (e.g., ZigBee transceiver/SOC) for sending data over a communications channel (e.g., Wireless channel). *See* Exhibit B.

18. As recited in Claim 3, the Accused Product contains a 2.4 GHz ZigBee Transceiver (EMBER’s 3587 ZigBee Radio). The ZigBee standard is built on top of IEEE 802.15.4. ZigBee is

a DSSS based technology. DSSS, also referred to as “Direct Sequence Spread Spectrum”, is a type of spread spectrum technology *See* Exhibit B.

19. As recited in Claim 3, the Accused Product operates in 2.4 GHz range. The modulation scheme employed by the Accused Product is O-QPSK since it operates in 2.4 GHz range. There are total 16 Channels (numbered from 11 to 26) in 2.4GHz operation. *See* Exhibit B.

20. As recited in Claim 3, the spread-spectrum transmitter (e.g., ZigBee transceiver) utilized by the Accused Product comprises a memory (e.g., data RAM) for storing N (e.g., N=4) bits of data as stored data, with N (e.g., N=4) representing a number of bits in a symbol. The spread-spectrum transmitter (e.g., ZigBee transceiver) utilized by the Accused Product maps 4 bits into one data symbol and thereafter stores it in a memory/buffer. *See* Exhibit B.

21. As recited in Claim 3, the spread-spectrum transmitter (e.g., ZigBee transceiver) utilized by the Accused Product comprises a chip-sequence encoder (e.g., symbol to chip mapper), coupled to said memory, for selecting, responsive to the N (e.g., N=4) bits of stored data, a chip-sequence signal (e.g., PN Sequence) from a plurality of chip-sequence signals (e.g., 16 PN Sequences) stored in said chip-sequence encoder (e.g., symbol to chip mapper), as an output chip-sequence signal (e.g., PN Sequence). For each symbol, which comprises 4-bits, 1 of 16 PN sequences are selected. The symbol to chip mapper comprises a table which has sixteen 32-bit PN Sequences (chip values) corresponding to each of sixteen 4-bit data symbols. *See* Exhibit B.

22. As recited in Claim 3, the spread-spectrum transmitter (e.g., ZigBee transceiver) utilized by the Accused Product comprises a transmitter section (e.g., a transmitter path section which uses front end and digital baseband) , coupled to said chip-sequence encoder (e.g., symbol to chip mapper), for transmitting the output chip-sequence signal (e.g., the selected PN sequence for a data symbol) as a radio wave (e.g., modulated RF signal), at a carrier frequency (at a carrier

frequency of one of 16 carrier frequencies identified by 2.405 MHz, 2.410 MHz, 2.415 MHz, 2.420, 2.425 MHz, 2.430 MHz, 2.435 MHz, 2.440 MHz, 2.445 MHz, 2.450 MHz, 2.455 MHz, 2.460 MHz, 2.465 MHz, 2.470 MHz, 2.475 MHz, and 2.480 MHz), over said communications channel (e.g., wireless channel), as a spread-spectrum signal. IEEE 802.15.4, on which ZigBee protocols are built, mandates O-QPSK modulation on various frequency carriers in 2.4 GHz. *See* Exhibit B.

23. The elements described in paragraphs 16-22 are covered by at least Claim 3 of the ‘307 Patent. Thus, Defendant’s use of the Accused Product is enabled by device described in the ‘307 Patent.

INFRINGEMENT OF THE ‘307 PATENT

24. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding Paragraphs.

25. In violation of 35 U.S.C. §271, Defendant has directly infringed the ‘307 Patent.

26. Defendant has had knowledge of infringement of the ‘307 Patent at least as of the service of the present Complaint.

27. Defendant has directly infringed at least one claim of the ‘307 Patent by using, at least through internal testing or otherwise, the Accused Product without authority in the United States. As a direct and proximate result of Defendant’s direct infringement of the ‘307 Patent, Plaintiff has been damaged.

28. By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the ‘307 Patent, pursuant to 35 U.S.C. §271.

29. Defendant has committed these acts of infringement without license or authorization.

30. As a result of Defendant's infringement of the '307 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

31. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

DEMAND FOR JURY TRIAL

32. Plaintiff demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

- a. That Defendant be adjudged to have directly infringed the '307 Patent either literally or under the doctrine of equivalents;
- b. An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;
- c. An award of damages pursuant to 35 U.S.C. §284 sufficient to compensate Plaintiff for the Defendant's past infringement, including compensatory damages;
- d. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- e. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and

f. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: August 30, 2019

Respectfully submitted,

KIZZIA JOHNSON PLLC

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ATTORNEYS FOR PLAINTIFF

EXHIBIT A

EXHIBIT B